



DOW™ LDPE 611A

Low Density Polyethylene Resin

Overview

- A shrink film resin with good optics for packaging applications
- Optimum gauge range: 1.0-3.0 mil
- Complies with U.S. FDA 21 CFR 177.1520 (c) 2.2
- Complies with U.S. FDA-DMF
- Complies with Canadian HPFB No Objections(With Limitations)
- Complies with EU, No 10/2011
- Consult the regulations for complete details.

Additive

- Antiblock: 1245 ppm
- Slip: No
- Processing Aid: No

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.924 g/cm ³	0.924 g/cm ³	ASTM D792
Base Density ¹	0.923 g/cm ³	0.923 g/cm ³	Dow Method
Melt Index (190°C/2.16 kg)	0.88 g/10 min	0.88 g/10 min	ASTM D1238
Films	Nominal Value (English)	Nominal Value (SI)	Test Method
Film Toughness			ASTM D882
MD : 1.0 mil (25 µm)	666 ft-lb/in ³	55.1 J/cm ³	
MD : 2.0 mil (51 µm)	780 ft-lb/in ³	64.5 J/cm ³	
TD : 1.0 mil (25 µm)	770 ft-lb/in ³	63.7 J/cm ³	
TD : 2.0 mil (51 µm)	808 ft-lb/in ³	66.9 J/cm ³	
Secant Modulus			ASTM D882
2% Secant, MD : 1.0 mil (25 µm)	28600 psi	197 MPa	
2% Secant, MD : 2.0 mil (51 µm)	29200 psi	201 MPa	
2% Secant, TD : 1.0 mil (25 µm)	32600 psi	225 MPa	
2% Secant, TD : 2.0 mil (51 µm)	32900 psi	227 MPa	
Tensile Strength			ASTM D882
MD : Yield, 1.0 mil (25 µm)	1730 psi	11.9 MPa	
MD : Yield, 2.0 mil (51 µm)	1710 psi	11.8 MPa	
TD : Yield, 1.0 mil (25 µm)	1780 psi	12.3 MPa	
TD : Yield, 2.0 mil (51 µm)	1770 psi	12.2 MPa	
MD : Break, 1.0 mil (25 µm)	3680 psi	25.4 MPa	
MD : Break, 2.0 mil (51 µm)	3130 psi	21.6 MPa	
TD : Break, 1.0 mil (25 µm)	2510 psi	17.3 MPa	
TD : Break, 2.0 mil (51 µm)	2450 psi	16.9 MPa	
Tensile Elongation			ASTM D882
MD : Break, 1.0 mil (25 µm)	270 %	270 %	
MD : Break, 2.0 mil (51 µm)	370 %	370 %	
TD : Break, 1.0 mil (25 µm)	540 %	540 %	
TD : Break, 2.0 mil (51 µm)	560 %	560 %	
Dart Drop Impact			ASTM D1709A
1.0 mil (25 µm)	78 g	78 g	
2.0 mil (51 µm)	120 g	120 g	
Elmendorf Tear Strength			ASTM D1922
MD : 1.0 mil (25 µm)	190 g	190 g	
MD : 2.0 mil (51 µm)	400 g	400 g	
TD : 1.0 mil (25 µm)	180 g	180 g	
TD : 2.0 mil (51 µm)	450 g	450 g	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Vicat Softening Temperature	207 °F	97.2 °C	ASTM D1525
Melting Temperature (DSC)	234 °F	112 °C	Dow Method

Optical	Nominal Value (English)	Nominal Value (SI)	Test Method
Gloss			ASTM D2457
45°, 1.00 mil (25.4 µm)	71	71	
45°, 2.00 mil (50.8 µm)	76	76	
Haze			ASTM D1003
1.00 mil (25.4 µm)	6.00 %	6.00 %	
2.00 mil (50.8 µm)	7.00 %	7.00 %	

Extrusion	Nominal Value (English)	Nominal Value (SI)
Melt Temperature	416 °F	213 °C

Extrusion Notes

Fabrication Conditions For Blown Film:

- Screw Type: Single Flight
- Die Gap: 40 mil (1.02 mm)
- Melt Temperature: 416°F (213°C)
- Output: 10 lb/hr/in. of die circumference
- Die Diameter: 6 in.
- Blow-Up Ratio: 2.5:1
- Screw Speed: 130 rpm
- Frost Line Height: 28 in. (711 mm)

Notes

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

¹ Base density is estimated using the assumption that every 1000 ppm of antiblock in the finished product raises the density of the polymer by 0.0006 g/cm³. Base density is the estimated density of the polymer if it did not contain any antiblock.

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